

# INTRO TO WEB PROGRAMMING

CODE WITH  
JAYKEF

A swift journey into  
the World Wide Web

PLUS MORE ON

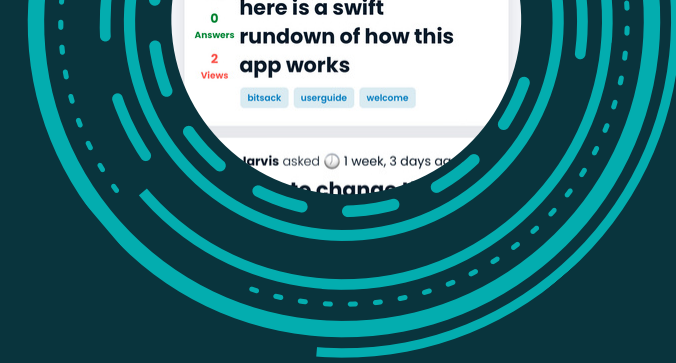
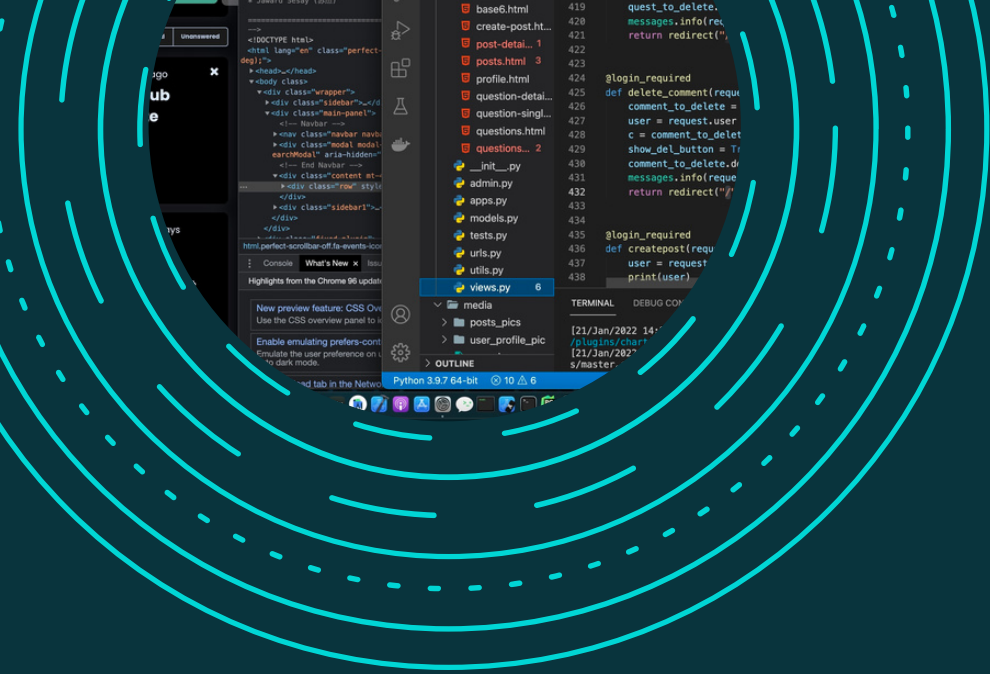
- DIY CS/SE PROJECTS
- TECH TALKS

Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology



1<sup>ST</sup>  
TUTORIAL



# Content

1. Intro

2. HTML

3. CSS + Bootstrap

4. JavaScript

5. Git

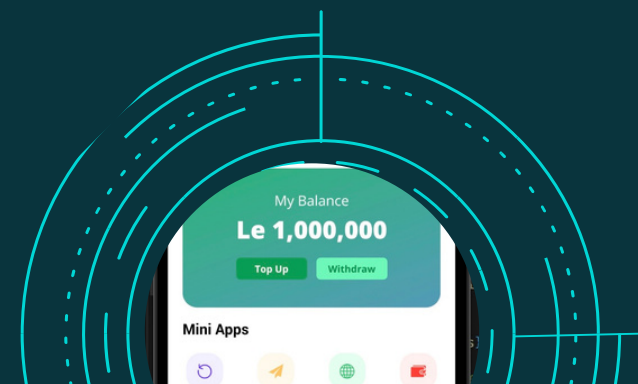
6. Project

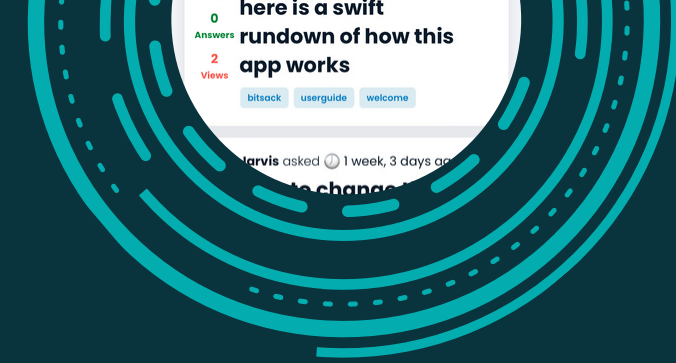
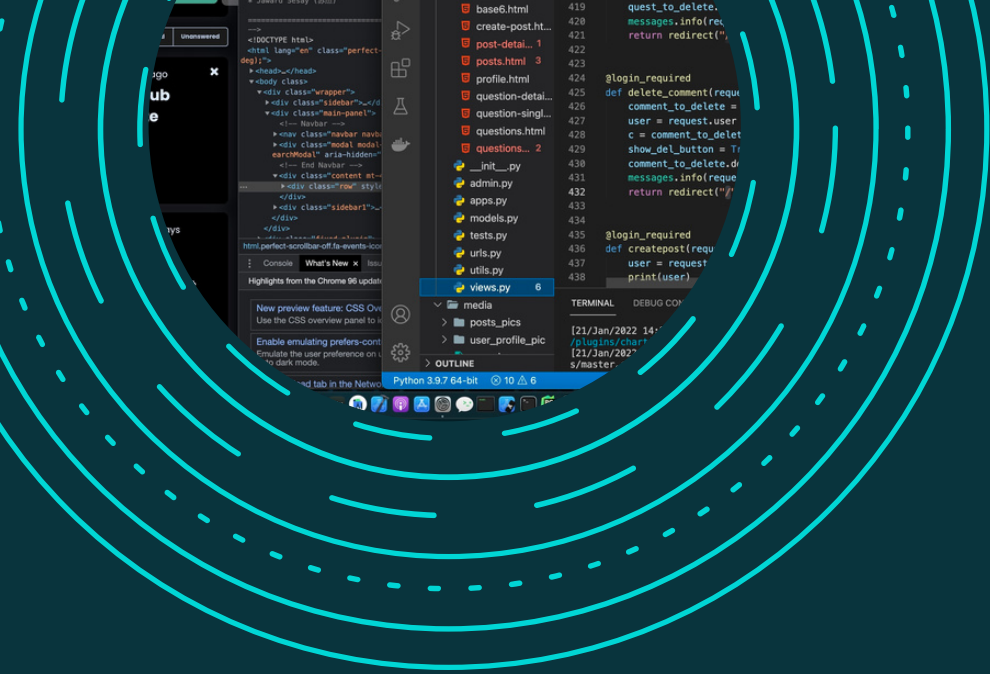


**Jaward Sesay | Jaykef (苏杰)**

Full Stack Developer | Freelancer

Software Engineering Student | Beijing Institute of Technology





# Dev Tools

## Sublime Text


## Chrome



### Sublime Text

The sophisticated text editor for code, markup and prose.

[DOWNLOAD](#)



Browse fast on your iPhone and iPad with the love on desktop. Pick up where you left off on

3.7/5 ★★★★★

Age Rating: 17+

Developer: Google LLC

Size: 14

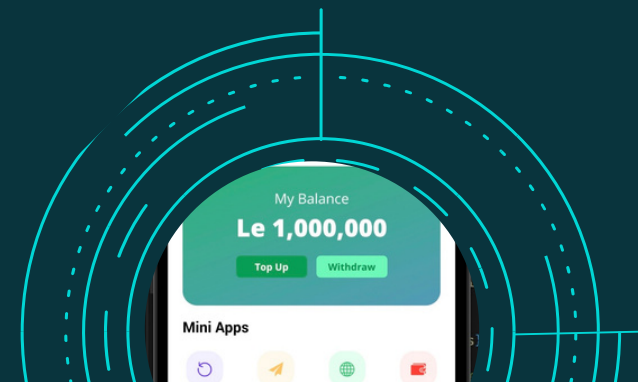
Categor

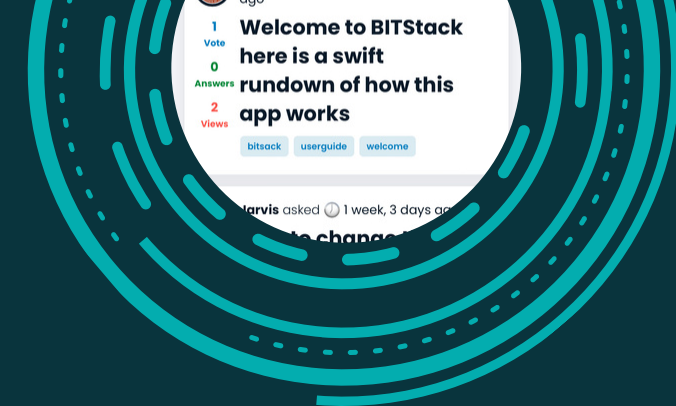
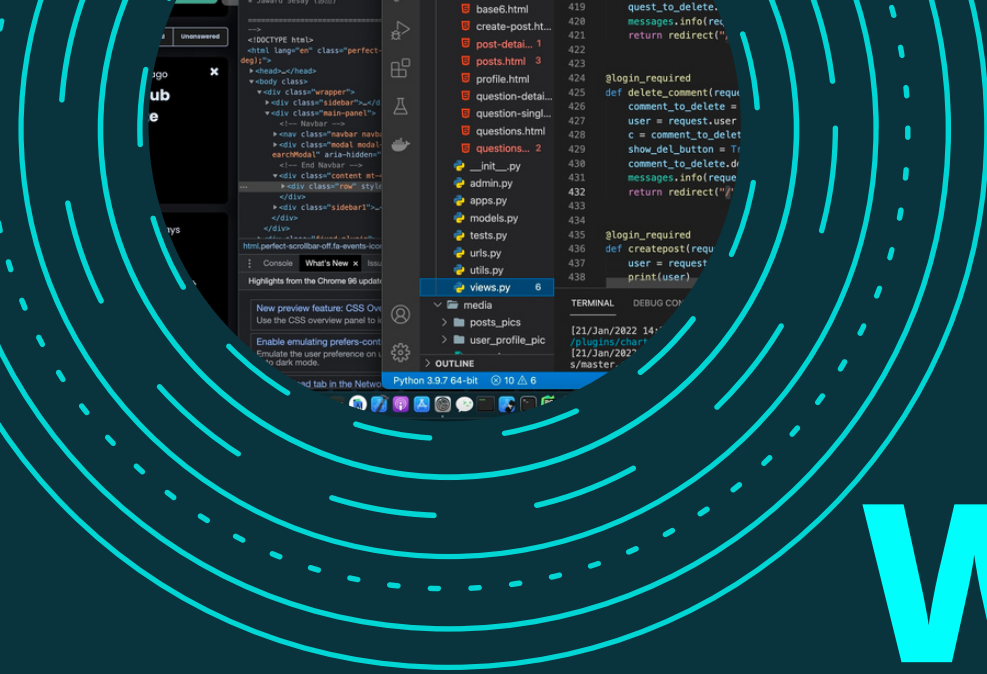
Other tools can  
also be used



Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology





# Intro to Web Programming

<https://www.bit.edu.cn/>  
HTTP/HTTPS

Request/Response  
commands

GET

POST

...

HTTP Request

GET / HTTP/1.1  
Host : www.example.com

...

HTTP Response

HTTP/1.1 200 ok  
Content-type: text/html

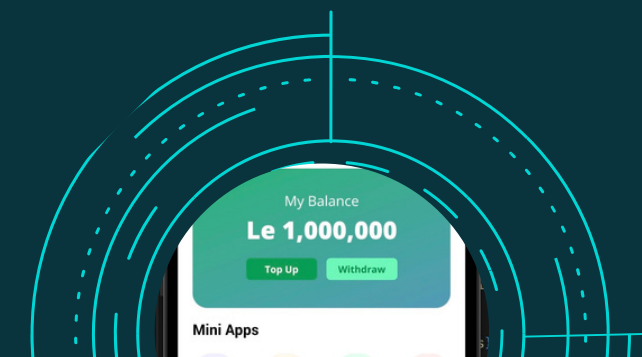
...



Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology

HTTP - Hypertext Transfer Protocol  
HTTPS - Secured Hypertext Transfer Protocol





The image is a composite of three screenshots from a development environment, overlaid with a large, stylized, glowing blue circular pattern that resembles a signal or a stylized 'G'.

**Top Left (Browser):** A dark-themed web browser window showing a page titled "perfect". The page has a "login" button. The address bar shows "https://localhost:3000/perfect".

**Top Right (Code Editor):** A code editor showing HTML code for the "perfect" page. The code includes a "login" button and a "perfect" page structure.

```

<DOCTYPE html>
<html lang="en" class="perfect">
  <head>
    <title>perfect</title>
    <meta charset="utf-8">
    <script src="/static/js/main.js"></script>
  </head>
  <body>
    <div class="container">
      <div class="row">
        <div class="col-md-6">
          <h1>perfect</h1>
          <div class="form">
            <input type="text" value="username">
            <input type="password" value="password">
            <button type="button" value="login">login</button>
          </div>
        </div>
        <div class="col-md-6">
          <h2>perfect</h2>
          <div class="form">
            <input type="text" value="username">
            <input type="password" value="password">
            <button type="button" value="login">login</button>
          </div>
        </div>
      </div>
    </div>
  </body>
</html>

```

**Bottom (Terminal):** A terminal window showing the command "python 3.9.7 64-bit" and the output "Python 3.9.7 64-bit". The terminal also shows the command "python 3.9.7 64-bit" and the output "Python 3.9.7 64-bit".

# Common html tags

- `<p>`
- `<h1>`, `<h2>`...`<h6>`
- `<a>`
- `<div>`
- `<img>`
- `<table>`
- `<ol>`, `<ul>`
- `<form>`

- `<p>`
- `<h1>`, `<h2>` . . . . `<h6>`
- `<a>`
- `<div>`
- `<img>`
- `<table>`
- `<ol>`, `<ul>`
- `<form>`

```
<!-- html code -->
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>
      Hello
    </title>
  </head>
  <body>
    Hello, World!
  </body>
</html>
```

# Opening tag

The diagram illustrates the structure of an opening HTML tag, `<html lang="en">`. The components are labeled as follows:

- Character**: Points to the opening angle bracket (`<`).
- Attribute value**: Points to the value `"en"` within the `lang` attribute.
- Attribute Name**: Points to the attribute name `lang`.

The closing angle bracket (`>`) is not explicitly labeled.

# Closing Tag

A diagram illustrating the components of an HTML closing tag. The tag is shown as `</html>` in a monospace font. The text is color-coded: the opening angle bracket is blue, the forward slash is red, the tag name 'html' is green, and the closing angle bracket is blue. Labels with dashed lines point to each part: 'forward slash' points to the red slash, 'left-angle bracket' points to the first blue bracket, and 'right-angle bracket' points to the second blue bracket.

forward slash

</html>

left-angle bracket

right-angle bracket

# Closing Tag

A diagram illustrating the components of an HTML closing tag. The tag is shown as `</html>` in a monospace font. The text is color-coded: the opening angle bracket is blue, the forward slash is red, the tag name 'html' is green, and the closing angle bracket is blue. Labels with dashed lines point to each part: 'forward slash' points to the red slash, 'left-angle bracket' points to the first blue bracket, and 'right-angle bracket' points to the second blue bracket.

forward slash

</html>

left-angle bracket


right-angle bracket

# Language Features Tags

# Document Object Model (DOM)

```
graph TD; html[html] --> head[head]; html --> body[body]; head --> title[title]; title --> hello([hello]); body --> helloworld([Hello, World!]);
```

The diagram illustrates the Document Object Model (DOM) for the HTML document "Hello, World!". The root node is "html", which branches into "head" and "body". The "head" node contains a "title" node, which contains the text "hello". The "body" node contains the text "Hello, World!".



Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology

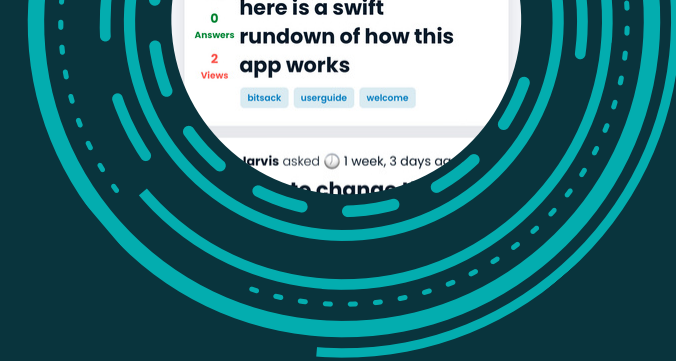
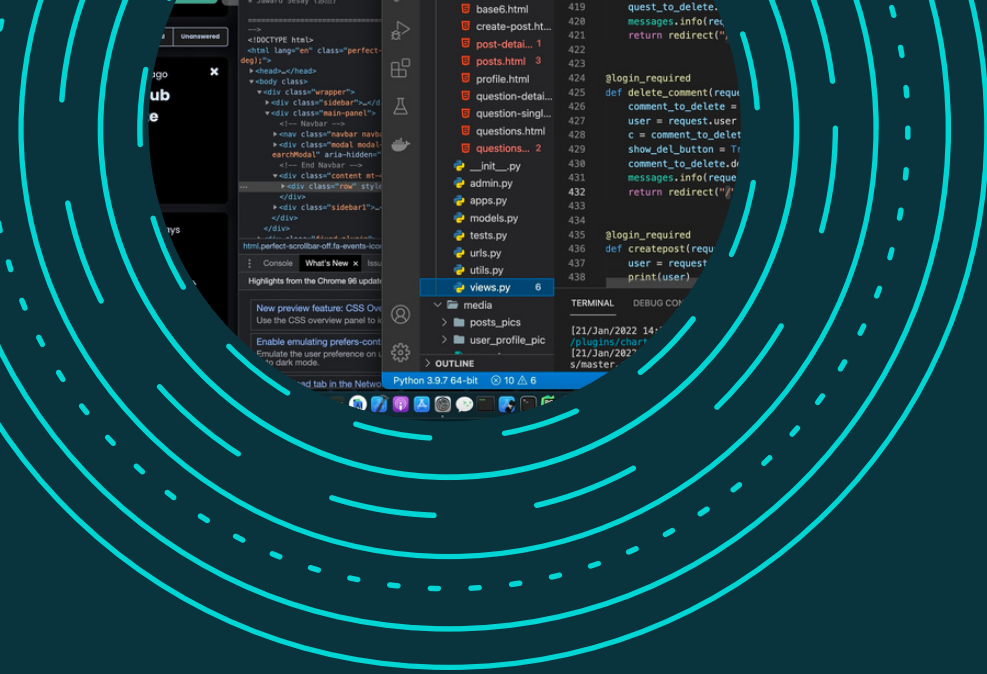
100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

HTML - Hypertext Markup Language

Keywords: Elements Attributes Tags

Keywords: Elements Attributes Tags





# HTML

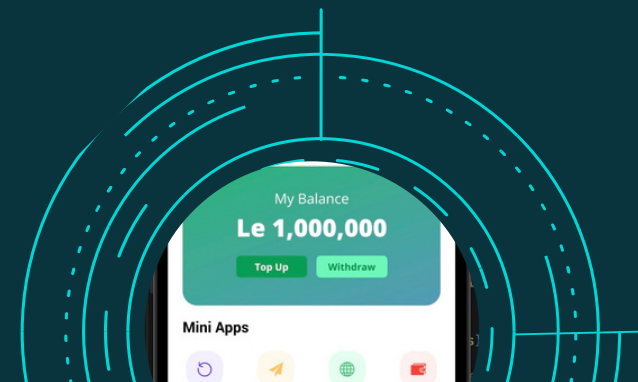
## more HTML elements and examples

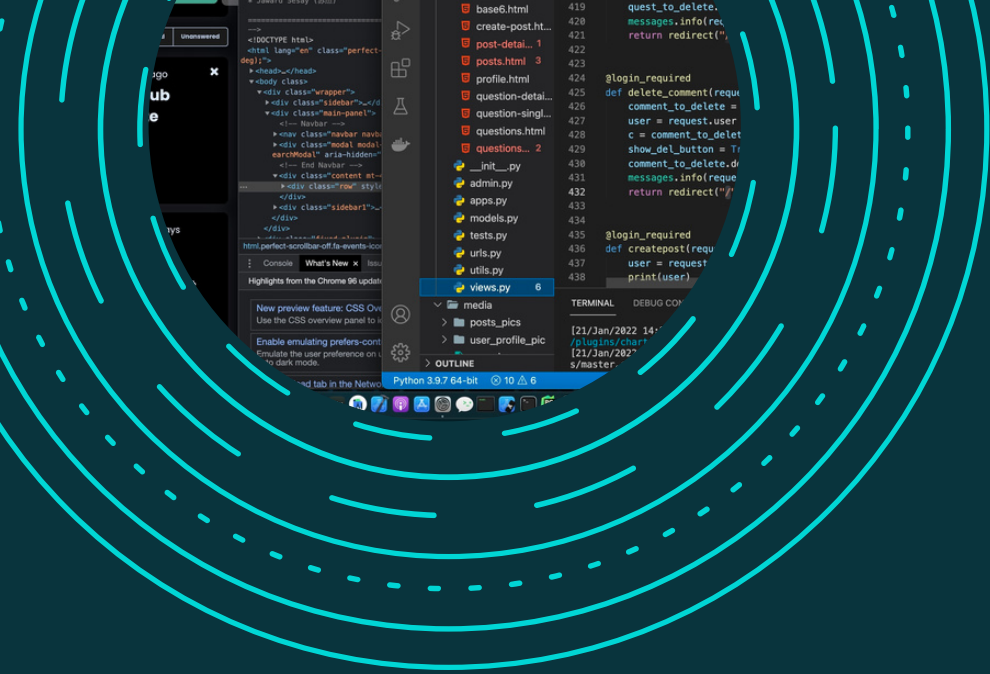
HTML - HyperText Markup Language  
Keywords: Elements Attributes Tags



Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology





# CSS

## Common CSS Properties

- color
- padding, margin
- text-align
- width, height
- font-family, font-size, font-weight
- background, background-color, background-image

```
/* CSS Code */
body {
    font-family: arial;
    text-align: center;
    margin-top: 50px;
}
h1 {
    color: blue;
    text-align: center;
}
h1:hover {
    color: red;
}
```

## CSS Selectors

- a, b Multiple Element Selector
- a b Descendant Selector
- a > b Child Selector
- [a=b] Attribute Selector
- a:b Pseudoclass Selector
- a::b Psuedoelement Selector

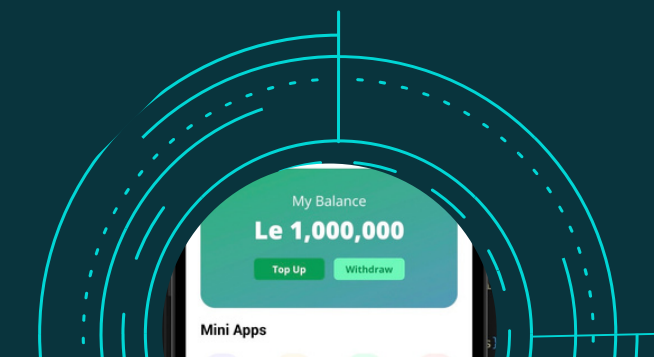


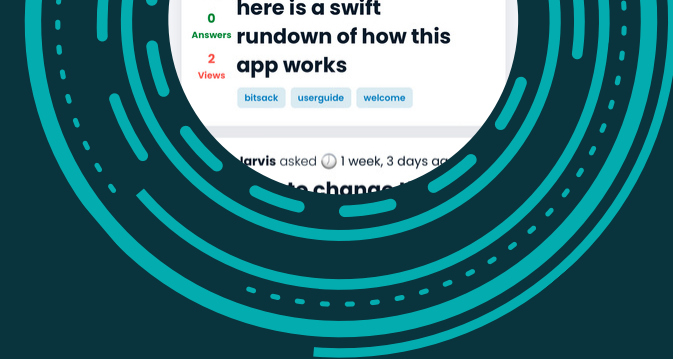
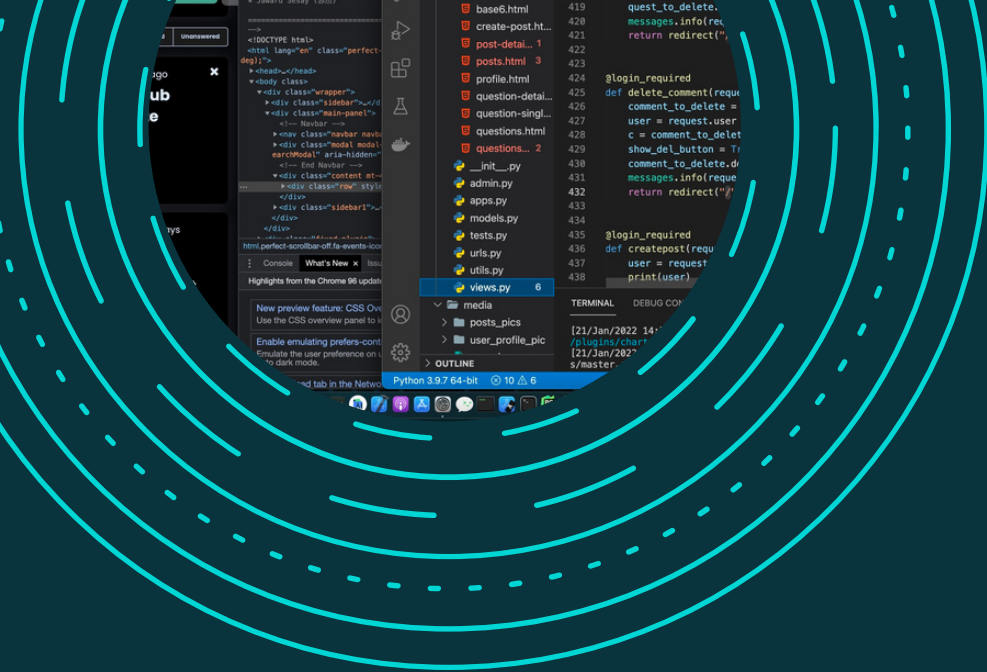
Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology

CSS - Cascading Style Sheet

Keywords: Selector, class, id, CSS pseudoclass





# CSS

## more CSS examples

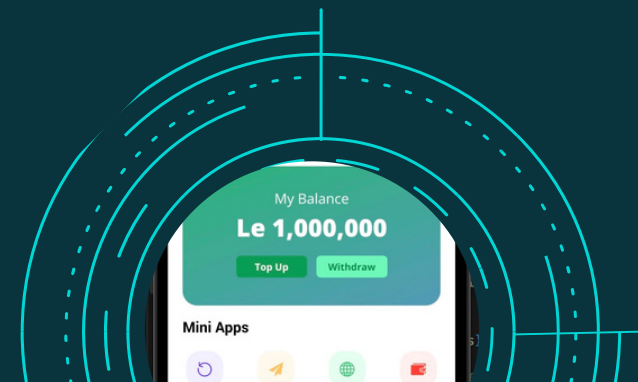
CSS - Cascading Style Sheet

Keywords: Selector, class, id, CSS pseudoclass



**Jaward Sesay | Jaykef (苏杰)**

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology





# Bootstrap Responsive Design

## Using CSS Only


- View Port
- Media Queries
- FlexBox
- CSS Grid

```
<!-- Bootstrap embedded in html code -->
<!DOCTYPE html>
<html lang="en-us">
  <head>
    <meta name="viewport" content="width=device-
      width, initial-scale=1.0">
    <link href="Bootstrap CDN goes here">
    <title> Hello! </title>
  </head>
  <body class="text-center">
    <h1 class="text-primary p-2">
      Hello, World!
    </h1>
  </body>
</html>
```



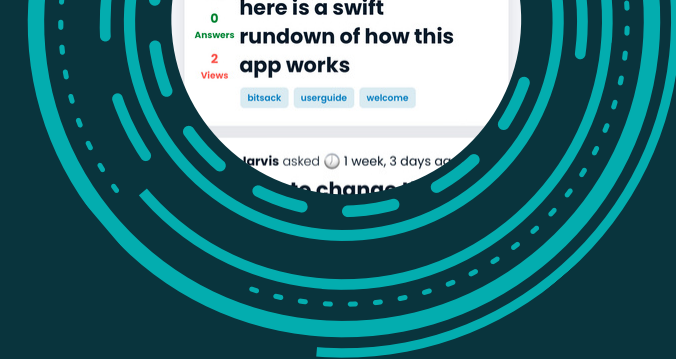
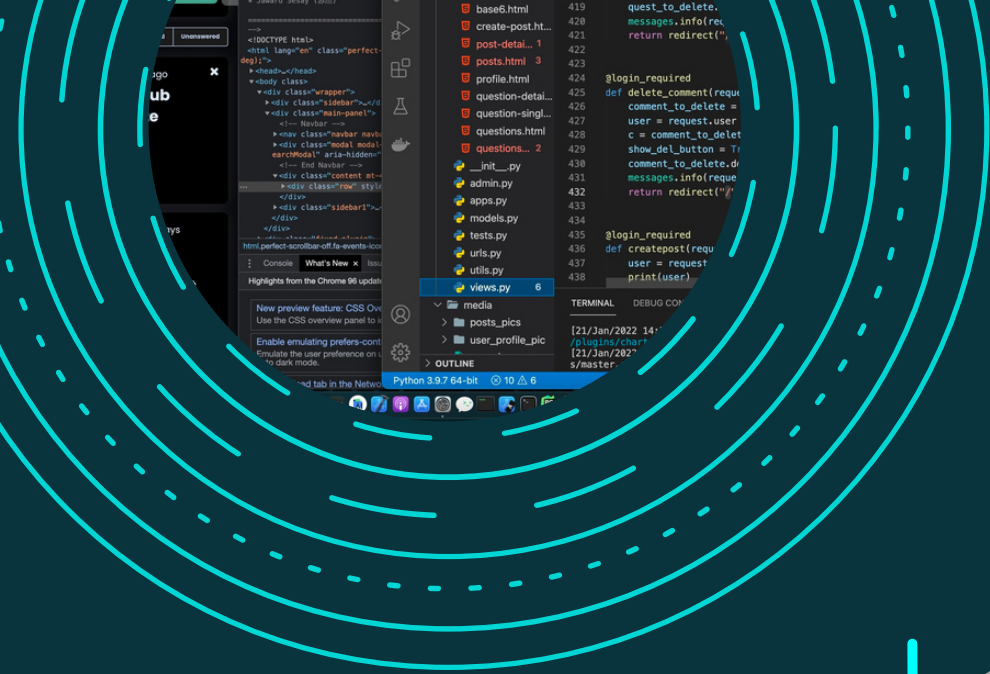
Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology



## Build fast, responsive sites with Bootstrap

Quickly design and customize responsive mobile-first sites with Bootstrap, the world's most popular front-end open source toolkit, featuring Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful JavaScript plugins.



# JavaScript

## JS Events

- click
- focus
- scroll
- blur
- resize
- submit
- keyup

• • • •

```
<!-- JavaScript embedded in html code -->
<!DOCTYPE html>
<html lang="en-us">
  <head>
    <title>Hello</title>
    <script>
      alert('Hello, World!');
    </script>
  </head>
  <body>
    <h1> Hello, World! </h1>
  </body>
</html>
```

## Syntax

```
let counter = 0;

for (let i = 0; i < 3; i++)
{

}

if (i < 3)
{

}

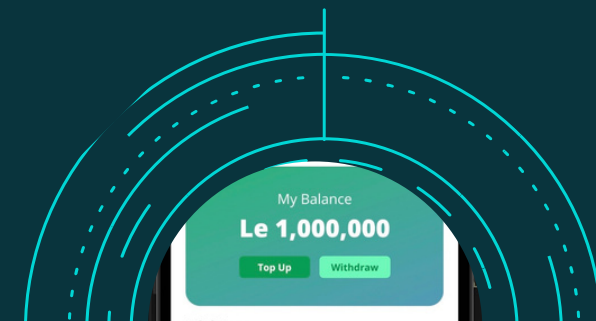
while (true) {

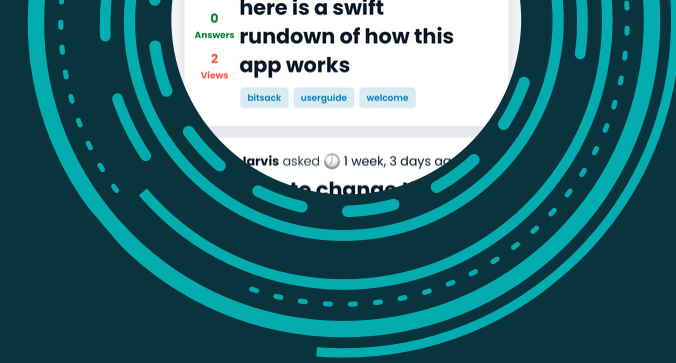
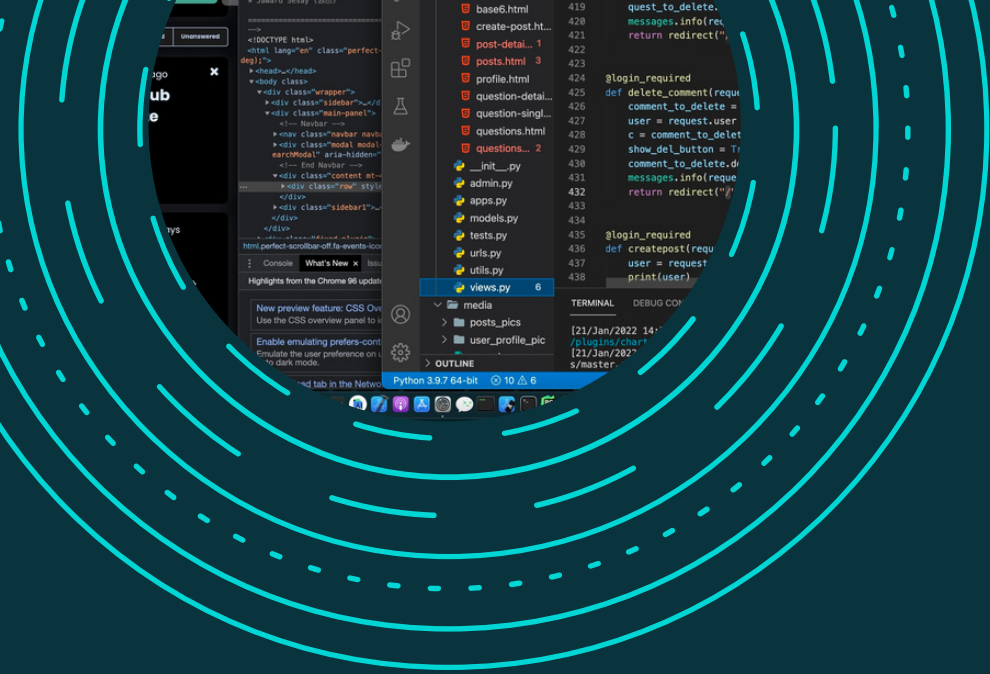
}
```



Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology





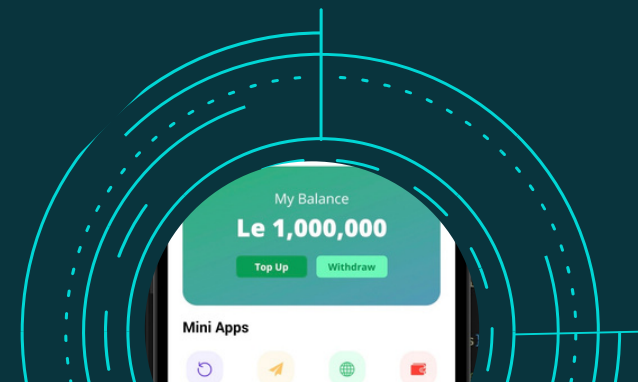
# JavaScript

## more JavaScript examples

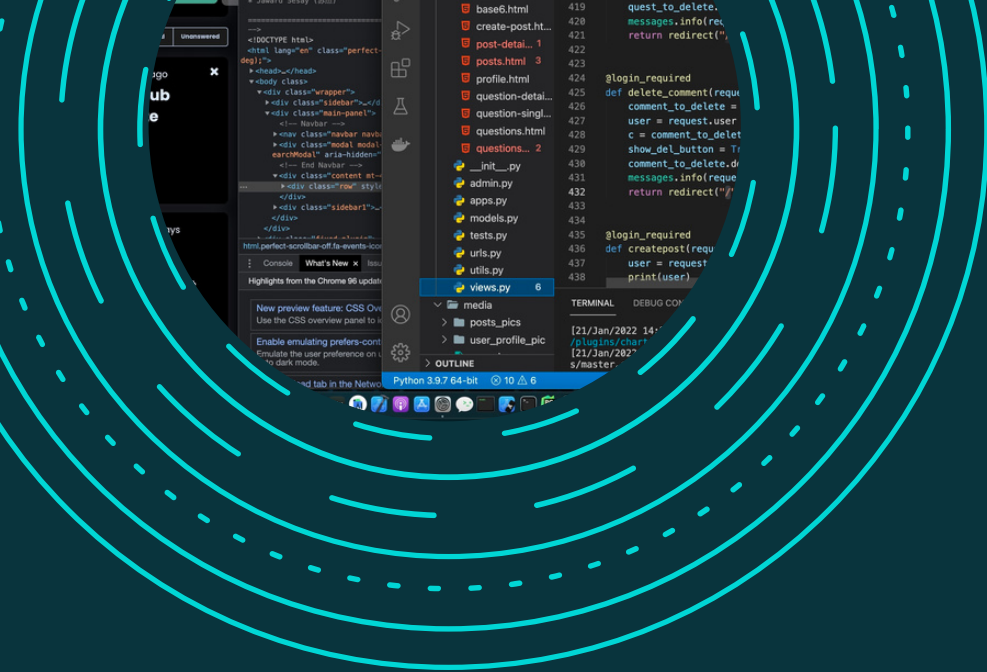
JavaScript – HyperText Markup Language  
Keywords: events, variables, functions



Jaward Sesay | Jaykef (苏杰)  
Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology

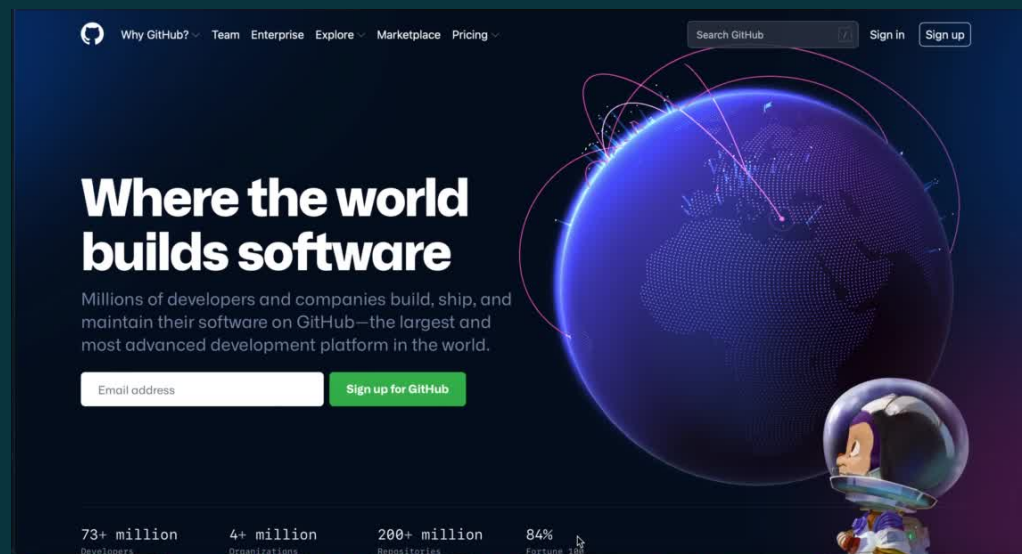






# Github

<https://github.com/>



**Jaward Sesay | Jaykef (苏杰)**

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology

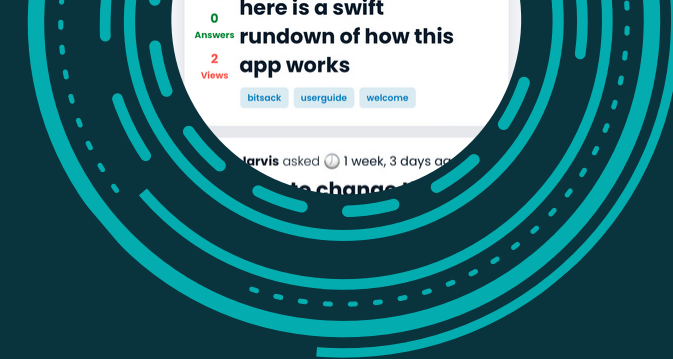
# Git

## Basic Git Commands

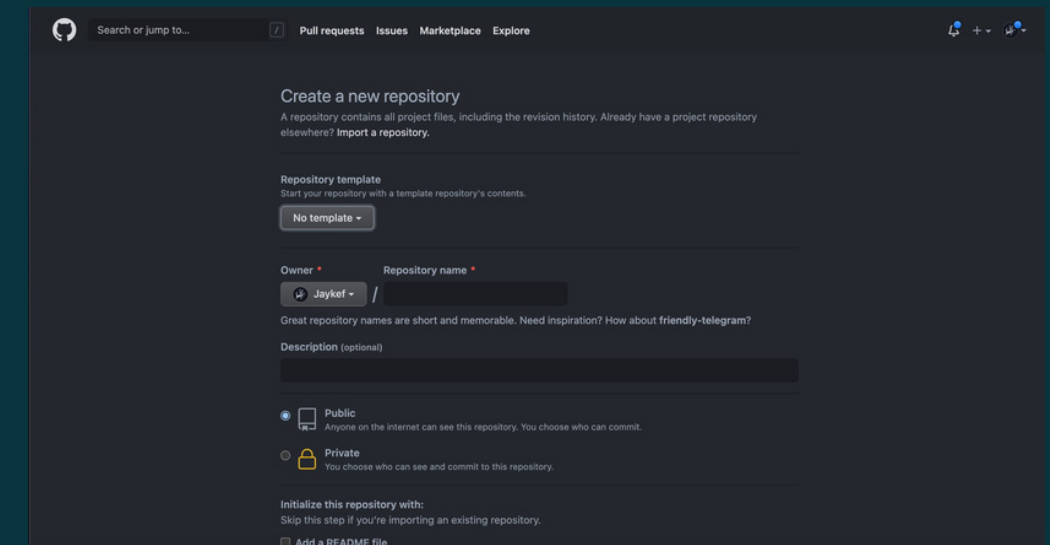
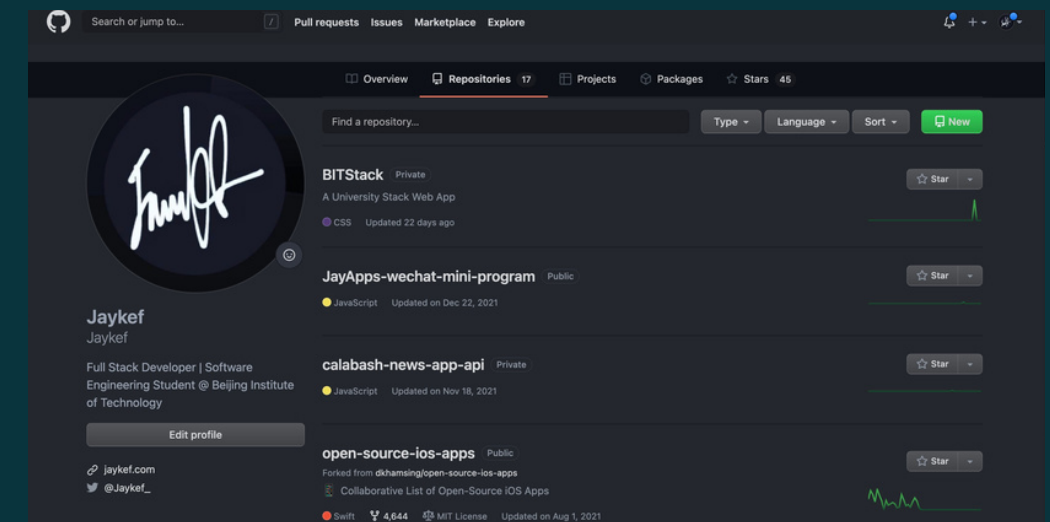
- `git clone <repository url>`
- `git add <new file name>`
- `git commit-m "some message"`
- `git commit-am "some message"`
- `git pull`
- `git push`

## Basic terminal/console Commands

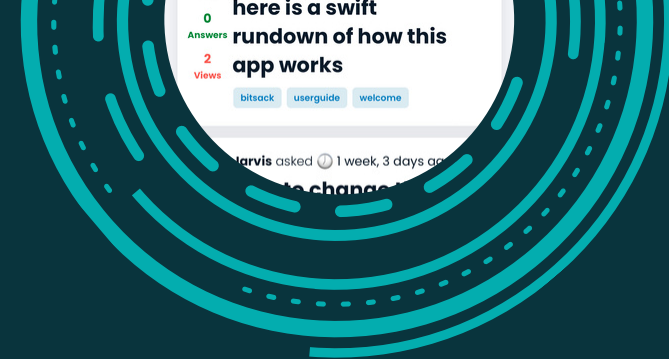
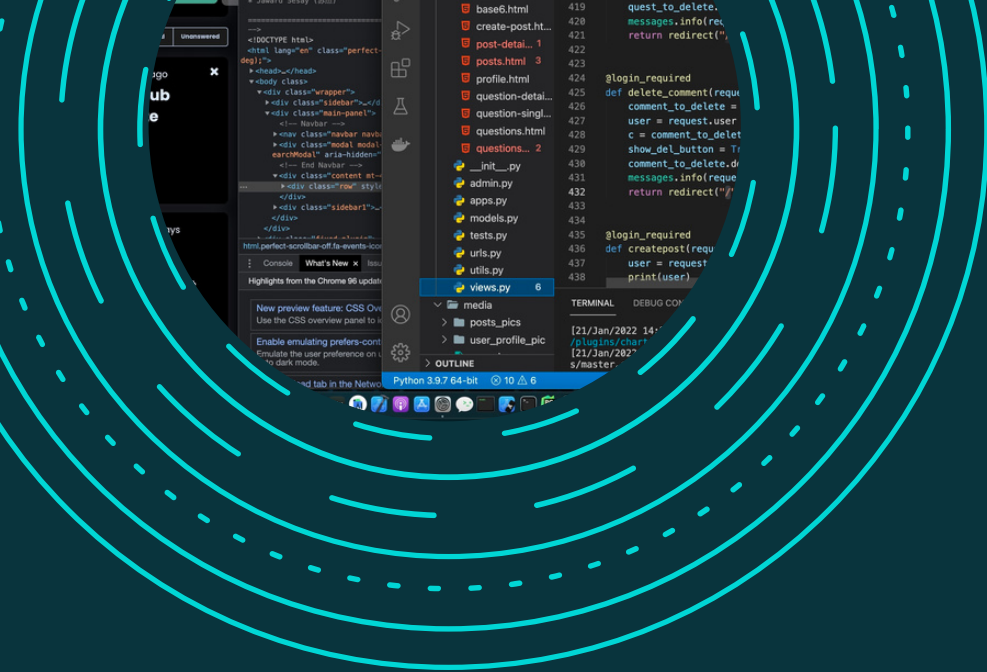
- `mkdir <name of directory>`
- `rmdir <name of directory>`
- `touch <name of file>`
- `rm <name of file>`
- `cd <path to directory>`
- `ls` (list items in directory)



## Getting Started with Github







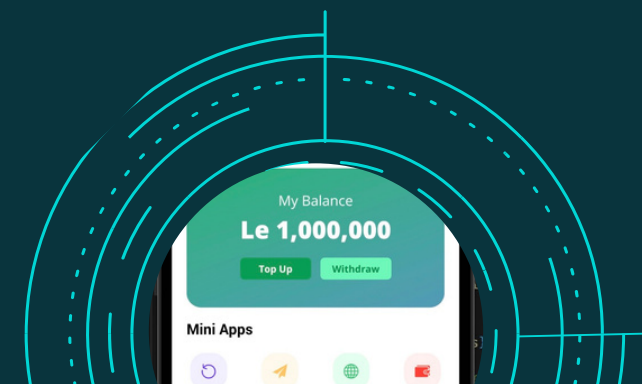
# Project

## A Todo App



**Jaward Sesay | Jaykef (苏杰)**





Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology



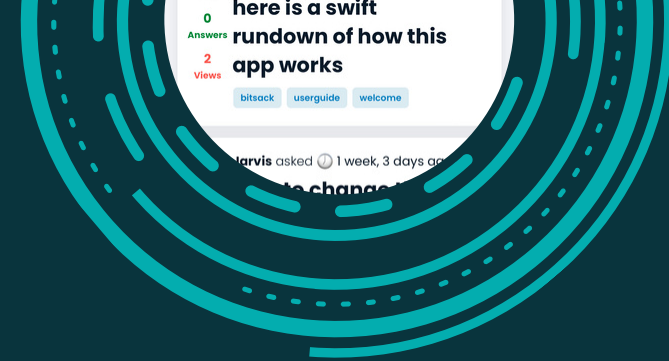
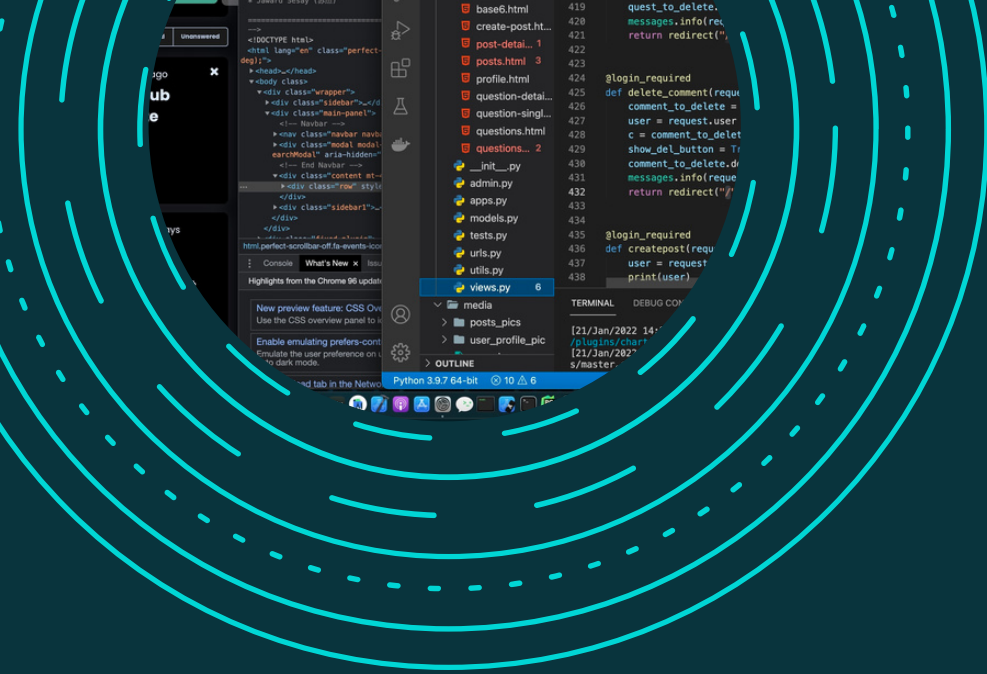
# My Todo App

Search Todos

## My Todos

Buy groceries at 9 am	
Attend programming class at 1 pm	
Play Basketball at 4 pm	
Practice coding at 9 pm	

Add a Todo...



# The End Thank you.



Jaward Sesay | Jaykef (苏杰)

Full Stack Developer | Freelancer  
Software Engineering Student | Beijing Institute of Technology

